

I Didn't Know Rotor Blades Could Do That

by LCdr. John Keane

After graduating from the Aviation Safety School, I looked back over my flying career to identify flights that I could have handled differently. Here's the story of one flight that I can't seem to get out of my mind.

I was just finishing my second consecutive sea tour flying the SH-60F, first as a pilot in an HS squadron, then as the Combat SAR and ASW officer for the carrier air wing. My very junior copilot and I got a cross-country flight from NAS Jacksonville to Norfolk, where our aircraft would appear as a static display at an on-board change of command the next day. We were to land on our assigned carrier, which was at Pier 12. We briefed and filed our flight plan. Heavy winds were forecast for the Norfolk area.

The flight went smoothly until our gas stop in Cherry Point, N.C., where we got our first taste of the high winds. As my copilot taxied out of the fuel pits, we turned perpendicular to the winds. With a little too much collective and pedal input, we ended up on two wheels. Applying down collective and neutral pedals brought the helo back to a level attitude and gave me a good debrief item for after the flight.

The second leg to Norfolk was uneventful, and after about seven hours of flying what was supposed to be a five-to-six hour hop, we were at the ship. The winds had increased steadily during the flight and were reported as 30 knots, gusting to 45, the maximum at which we could disengage rotors.

While circling to land, we saw the winds were coming from the aft port side of the ship. We were asked to make a "down the throat" approach (which goes from bow to stern) and land on helo spot 4. With the flight deck clear of aircraft, we had plenty of room to maneuver. As I made my approach from the left seat with severe gusts coming from the starboard side of the aircraft, I had to apply a boot full of right pedal and a plethora of flight-control inputs.

I fought my way toward spot 4, and the LSE signaled me to land as soon as I achieved a stable hover. I landed, slightly to the right of the spot, and decided there was no reason to try to reposition a couple of feet, so we shut down. I remember my copilot remarking that it really was "a varsity day."

After the post-landing checks, we began the shutdown checklist. We brought both power-control levers to idle and waited for the engines to stabilize. When the No. 2 engine was stable, we secured the power-control lever and fuel-system selector lever, and the rotor slowed normally. The LSE called the droop stops in, and we secured No. 1. As Nr decreased to about 55 percent, I noticed something unusual. The main rotor blades began to rise on the starboard side of the aircraft and dive for the deck on the port side. I immediately called for my copilot to apply the rotor brake to stop this nonsense. He slammed it on, but there was no pressure. He pumped the brake to restore some pressure, but it was futile. We were going to have

to watch the rotor blades dance their way to a halt. As the rotors slowed, the blades flexed up on the right and dove to within a few feet of the deck on the left. Eventually the madness stopped, and I let out a sigh of relief. Other than some damaged droop stops, the aircraft was in one piece. I reviewed the PLAT tape of the event later and rejoiced that my squadron hadn't had to convene an aircraft mishap board. I recall thinking, "I didn't know rotor blades could do that."

What had gone wrong? If this landing had turned into a mishap, one of the causal factors would have been overconfidence in my ability to

land the aircraft in questionable winds, when I could have landed ashore and brought the plane aboard the next morning. I didn't realize how the blades would react to the wind blowing straight up as they hit the side of the ship. We also could have landed in the middle of the deck (since there was plenty of room to maneuver) and let the V-1 division put the bird on the spot. As it was, we landed too close to the deck edge with the blades at—if not over—the deck edge (a position I later discovered was prohibited by CV NATOPS for good reason). 🦅

LCdr. Keane flies with HS-5. He was safety officer when he wrote this article.

Photo-composite illustration by Allan Amen

